



**UNIVERSITY OF SWAZILAND**  
**2<sup>nd</sup> SEM. 2017/2018**  
**RE-SIT EXAMINATION PAPER**

**PROGRAMME:** All B.Sc. YEAR I

**COURSE CODE:** ASC 104

**TITLE OF PAPER:** ZOOLOGY

**TIME ALLOWED:** TWO (2) HOURS

**INSTRUCTIONS:** ANSWER ALL QUESTIONS FROM SECTION A  
 ANSWER ONLY TWO (2) QUESTIONS FROM SECTION B

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## SECTION A

## QUESTION 1A

(10 Marks)

1. To be considered alive an object must have:
  - A. At least one characteristics of living things
  - B. Most characteristics of living things
  - C. All the characteristics of living things.
  
2. If observed under a microscope it will be noticed that
  - A. Both living and non-living things are made up of cells
  - B. Only non-living things are made up of cells
  - C. Only living things are made up of cells
  
3. There are \_\_\_\_\_ types of domains of living things
  - A. Two
  - B. Three
  - C. Four
  
4. Approximately how many living organisms have been identified on the planet?
  - A. 1.5 million
  - B. 2.0 million
  - C. 3.0 million
  
5. The process of grouping things based on their similarities (shared characteristics) is called
  - A. Taxidermy
  - B. Taxonomy
  - C. Pachidermy
  
6. The first person to have created a classification system for living organisms was
  - A. Carolus Linneaus
  - B. Leonardo Da Vinci
  - C. Aristotle
  
7. The correct term for a "two-part naming system" is
  - A. Taxonomy
  - B. Binomial nomenclature
  - C. Genus and species
  
8. Which of the following is the correct scientific name for a house cat?
  - A. Felis domesticus
  - B. Felis Domensticus
  - C. Felis Domesticus



9. The scientific name for a muskox (a very hairy buffalo-looking creature from the high Arctic) is *Ovibos moschatus*. The genus is which part of the name?  
 A. Ovibos  
 B. Moschatus  
 C. Both
10. The correct sequence for the seven levels of classification is  
 A. Kingdom Phylum Order Class Family Genus Species  
 B. Kingdom Phylum Family Class Order Genus Species  
 C. Kingdom Class Family Phylum Order Genus Species  
 D. Kingdom Phylum Class Order Family Genus Species

**QUESTION 1b**

- (d) What is meant by biodiversity? (5 Marks)  
 (e) Why is there a need for classification and systematic naming of living organisms? 5 Marks )  
 (f) Draw an animal cell with all the organelles. (10Marks)

**QUESTION 2**

- (a) Define evolution. (5 Marks)  
 (b) Name three (3) major features that differentiate a plant cell from an animal cell. (5 Marks)  
 (c) What are saprophytes? Which kingdom do they belong? (10Marks)  
 (d) What is the cell wall of fungi made up of? (5 Marks)

**SECTION B**

**QUESTION 3**

**CHOOSE THE CORRECT ANSWER**

**(2 Marks Each)**

1. Which cells do not form a layer and remain structurally separate?  
 a. nerve cells  
 b. gland cells  
 c. muscles cells  
 d. gland cells
2. During an injury nasal septum gets damaged and for its recovery which cartilage is preferred?  
 a. elastic cartilage  
 b. calcified cartilage  
 c. hyaline cartilage

d. fibrous cartilage

**3. Stratum germinativum is an example of which kind of epithelium?**

- a. columnar
- b. squamous
- c. cuboidal
- d. ciliated

**4. Lobules in parenchymatous organs consist of**

- a. reticular fibers
- b. blood vessels
- c. nerve fibres
- d. muscle fibres
- e. a, b, and c.

**5. Which one of the following tissues are you likely to find in articular surfaces?**

- a. tendon
- b. hyaline cartilage
- c. ciliated epithelium
- d. thrombocytes

**6. The characteristics of Cartilage are:**

- a. contains blood vessels, nerves
- b. gets its nourishment from capillaries outside the perichondrium, from dissolved substances found in intercellular substance.
- c. chondroblasts secrete cartilage by a process called appositional growth.
- d. B and C.

**7. The characteristics of bone tissue are:**

- a. periosteum form an inner osteogenic layer consists of osteoblasts.
- b. an outer layer made of fibrous connective tissue that connects bone to muscles.
- c. cells organized into lamellae and Haversian canals.
- d. All the above.

**8. What is the site for embryological development in mammals?**

- a. cervix
- b. bladder



- c. Vagina and vulva
- d. Uterine horns

9. Which structures are anatomically located beneath the rectum?

- a. ovaries and infundibulum
- b. fallopian tubes
- c. Cervix
- d. Vulva and vagina
- e. All the above

10. The fertilized embryo moves from the oviduct to the uterine horns, where fetal development begins by means of;

- a. mast cells and macrophages
- b. seminal fluid secretions from accessory glands
- c. smooth muscle contractions
- d. cilia, mucus
- e. c and d

11. The regressed corpus luteum is called;

- a. developing corpus luteum
- b. mature corpus luteum
- c. regressing corpus luteum
- d. corpus albicans
- e. old corpus luteum

12. TRUE OR FALSE.

(1 Mark)

The female reproductive tracts of farm animals are similar to the chicken, but differ primarily in shape and size of the uterus and cervix.

13. TRUE OR FALSE.

(1 Mark)

The cervix has a narrowed connection and annular rings between the vagina and uterus, with thin muscular walls not filled with cervical plug.

14. TRUE OR FALSE.

(1 Mark)

The ovum develops and is secreted from oviduct or fallopian tubes and hypothalamus.

**QUESTION 4:**

- i. Name the type of supportive tissues. **(10 Marks)**
- ii. List the functions of each supportive tissue. **(15 Marks)**

**QUESTION 5:**

- a) Why are avian testicles softer than mammalian testicles? **(5 Marks)**
- b) List the inner regions of an avian ovary. **(5 Marks)**
- c) How does the FSH and the LH hormones reach their target organs? **(5 Marks)**
- d) List three (3) functions of the scrotum. **(5 Marks)**
- e) State three (3) possible explanations for a red blood cell to appear to be nucleated, when examined under a microscope. **(5 Marks)**